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PROFILE

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February 1977

Department of Defense
High School News Service

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Published during the school year by High School News Service, a Department of Defense activity located at Norfolk, VA. Distribution is free directly to high schools and junior high schools, colleges and universities, libraries, career centers and ROTC units requesting the service.

PROFILE's purpose is to inform young people and guidance personnel on benefits, opportunities, privileges and programs of military service. As a public service vehicle, it provides information to the American people about their military forces.

The Secretary of the Navy has determined that publication of this periodical is necessary in the transaction of the public business required by law of this Department. Use of funds for printing this publication was approved by the Office of Management and Budget, August 8, 1975.

Cover

RESTING AT BERTH in Newport, RI, the EAGLE takes aboard Bicentennial visitors. Photo by Lt(j.g.) Char Jensen North, USN

PROFILE

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Counselors' Corner

We of the staff of PROFILE bid farewell to and commend Air Force Master Sergeants D. G. Francis, senior editor/layout, and P. B. Schuyler, admin/circulation, upon their retirement from the service. MSgt Francis, retiring with more than 20 years' service, will return to Wichita, KS, while MSgt Schuyler with more than 22 years' service, will remain in the Chesapeake, VA area. Succeeding MSgt Francis is Air Force Staff Sergeant R. A. (Bob) Davis, former editor of the Fuji Flyer, Yokota AB, Japan.

Several requests for more than 10 copies of PROFILE have been received. Controlled circulation (reduced postal costs) requirements limit distribution to no more than 10 copies. Special and unique requests for large quantities will be honored when copies are available. Our mission is to serve you; but if your school is closing or you no longer care to receive PROFILE, let us know immediately.

We hope you enjoy our attempts to brighten the magazine with different styles in covers, photos and articles. If you have suggestions let us hear from you.

Corrections

Please note that the Air Force has requested that all inquiries for information on job skills and programs should be addressed to:

AF/DPMM
Randolph Air Force Base, TX 78148

DECEMBER 1976 issue:

Page 4: Photo cutline, line 3 — "gravey" should be "gravy."

Page 12: Fourth para, line 1 — "Transporation" should be "Transportation."

Page 14: Second para, line 28 — "of" should be "or."

Page 15: Second para, line 2 — "transportaion" should be "transportation".

Page 18: Second para, line 2 — "Specialist Fourth Class" should be Specialist 4."

Page 18: Eighth para, line 13 — "Theordore" should be "Theodore."

A MILITARY WORKING DOG receives his annual checkup at base Veterinary Services.

Animals are only part of the job

U. S. Air Force Photos

It's surprising to many people that Air Force veterinarians don't spend all their working hours caring for animals.

Although veterinarians do deal with the animal population, they have many other responsibilities as well.

They must inspect all the food procured by the Air Force for wholesomeness, condition of the product and to determine if it is exactly what was ordered. They also inspect all eating facilities, plus vending machines located throughout Air Force bases. A third service is to advise the hospital commander on matters of diseases transmitted from animals to humans, such as rabies. Conducting animal clinics for pet owners is another aspect of the veterinary technician's job.

With inspection of eating facilities of primary concern, vets take their clipboards and checklists to base dining halls. Unannounced visits to such facilities are a way of making sure the activities are meeting the highest established standards for cleanliness of personnel, the building and its equipment as well.

"Whenever we inspect a dining facility, we just walk in at any time and start our job. Sometimes it's during normal duty hours," explains Doctor (Captain) H. R. Crowder, a veterinarian at Langley Air Force Base, VA.

When it comes to animal care, the Veterinary Service is required only to look after the military's working dogs. Other animals are cared for at clinics held periodically. Military personnel and their dependents may bring

Continued

(Center photo)

FINGER PLATING is used by Veterinary Services to check for personal cleanliness of food handlers.

FOOD PREVIOUSLY opened is date stamped, allowing vet specialists to check for freshness.

their pets in for inspection and treatment. During these clinics, customers are charged only for any medication prescribed.

While handling an average of 1.5 million dollars of food a month for an average-size Air Force base, the veterinarians point out that only a small amount is rejected. Dr. Crowder credits this success rate to the good rapport the Air Force has with contractors.

"Most of the contractors realize that we are going to look over the product when it arrives, so they really try to give us what was asked for," said Dr. Crowder. He credits the rest of the success to the people who work with him. "Our people are conscientious and highly qualified in their jobs. They know what to look for and they know what to do when they find it."

Students with a desire to enter

VETERINARY TECHNICIAN tests for fat content in a sample of ground beef. Lab testing of food products is a major part of food inspection.

the veterinarian field can best prepare themselves by taking both biology and agricultural courses while in high school. Any course dealing with animals or food can also be an asset.

One skilled specialist working in Veterinary Services at Langley is Airman First Class Trudy L. Miller. "I had a biology background, so I had an interest in the laboratory work," said Airman Miller. Unlike most people who enter the field, she knew exactly what she would be doing long before she reached technical training school.

The 13-week veterinary apprentice course is an integral part of the School of Health Care Sciences at Brooks Air Force Base, TX. While attending the course, students are instructed in such areas as food inspection, foodborne disease control, zoonosis (animal-to-man communicable disease) control, bacteriology and microbiology.

"Most of the people at school were surprised to find that most of the things they studied are in the food inspection area. I knew what the Air Force wanted... (partly) because both my parents were in the military and they forewarned me," she noted.

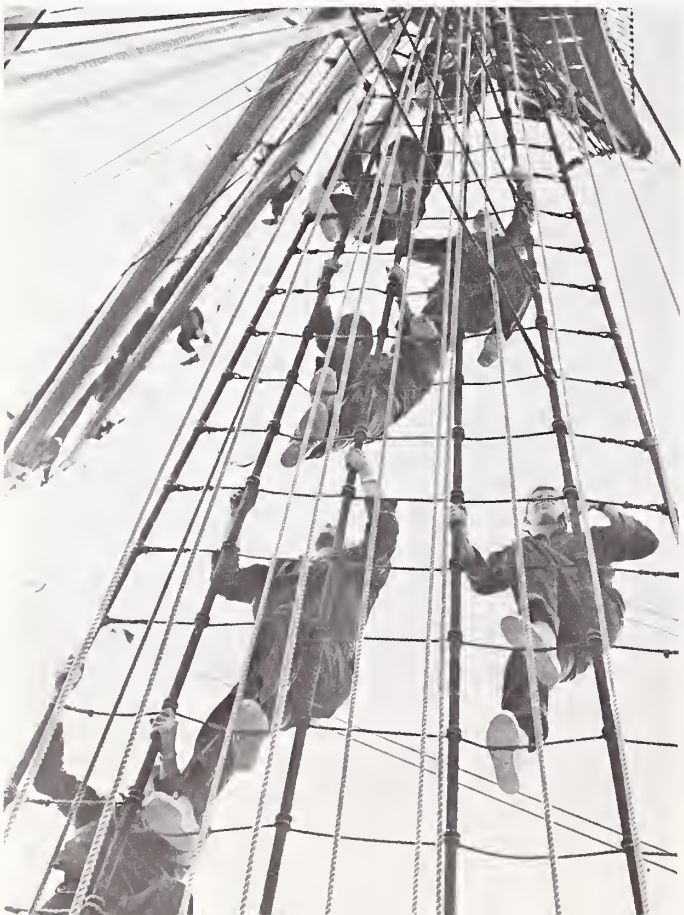
Trudy explained a typical visit to a dining hall, where there are many things to be checked. "First of all, when we enter a dining hall, we head for the freezers to check the temperatures in each and the food inside. From there, we make sure that the products have not been kept longer than they should be. This is done by checking the date stamped on the wrappings.

"Finally, we check the people and the eating utensils. Dishwashers must maintain a set temperature to kill any germs that might be on the utensils. As for the people, we use a method called finger plating to insure that their hands are clean and anyone with a cut is barred from handling the food," she concluded.

Day after day, the vets carry on in their vital job of protecting base residents, who, for the most part, are not even aware of what is being done for them. However, this lack of recognition does not hinder Air Force professionals like Dr. Crowder and Airman Miller who take pride in doing their jobs — and doing them well.

(NOTE: *The assistance of Airman First Class John M. Murphy and the Langley Air Force Base Public Information Office in the preparation of this article is appreciated.*)

LEADING THE PARADE, the Coast Guard Academy training ship, EAGLE, makes her way under full sail up the Hudson River. Below, cadets scale the bark's rigging.

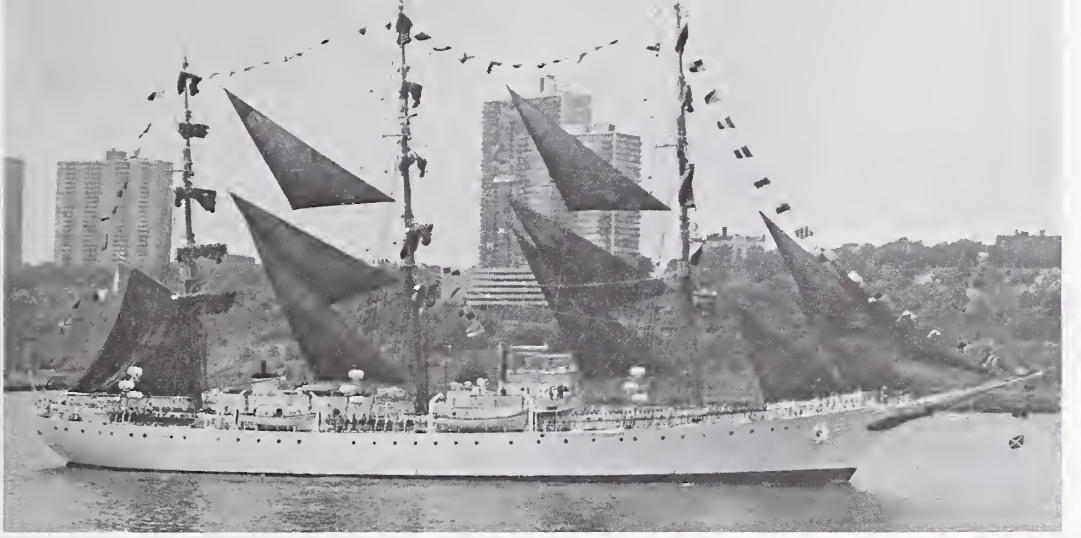


OP SAIL 1976

Operation Sail 1976 — Op Sail — is now a part of history, an impressive memory within a memorable Bicentennial year.

The Coast Guard's EAGLE had the honor of being host ship and lead vessel for the international parade of ships through New York Harbor on July 4. As hundreds of brightly colored national ensigns and signal flags were hoisted, more than 25,000 seamen "dressed ship" to follow the EAGLE in preparation for the 200th anniversary of the United States.

Shown here is a sampling of ships plying the Hudson River to berths in Manhattan, New Jersey, Brooklyn and Staten Island. Many of the foreign naval vessels paid visits to other U.S. ports before returning to their homelands.



THE LIBERTAD, from Argentina (PHOTO by CDR W. J. North, USN)

THE NIPPON MARU, from Japan (PHOTO by Lt(j.g.) Char Jensen North, USN)

THE AMERIGO VESPUCCI, from Italy (PHOTO by CDR W. J. North, USN)

Sailing into

The jet age Navy

THE USS FOSTER, a SPRUANCE-class destroyer, combines responsive power, fuel economy and many technological improvements. (US NAVY PHOTO)

Her huge engines might have been designed by a master hot rod mechanic or scavenged off a DC-10 aircraft. When the USS SPRUANCE got underway from Pascagoula, MS in September 1975, a new era in Navy tactical ships began — with economical, responsive marine gas turbine engines powering multi-purpose destroyers.

SPRUANCE, and her 30 sister ships projected for construction between now and 1979, adopted the hybrid jet engine similar to that used on the largest transport jets, because it is considerably lighter than more conventional power plants, yet delivers equal horsepower.

Added advantages come from fewer moving parts, a higher degree of control through automation and the variety of fuels which can be used with a minimum of environmental pollution. Translating these advantages into an actual ship, results in a 563-foot destroyer, which, although almost twice the size of her World War II counterpart, carries only half the crew.

The technological advances of automation have also greatly reduced the manpower needed to run a ship. Replacing the 21 to 24 men who used to work in the steam plant taking hourly readings on pressure, only one man in the SPRUANCE sits at a control monitoring computer. Malfunctions are warned through flashing lights and alarms instead of hissing valves and rising temperatures.

In traditional steam-driven ships, whether the steam is generated by nuclear fuel or burning oil, a command must be sent from the bridge to the engine room where a technician regulates the various valves to control the steam passing through the turbine engines. This takes time.

In the jet-powered SPRUANCE, the helmsman controls the variable pitch propellers and can quickly increase or decrease the ship's speed. This gives the commanding officer of the new ship and his crew more direct and immediate mastery of the ship's movements.

Commander Raymond Harbrecht, commanding officer of SPRUANCE, is quick to erase a major misconception many people have about the fuel consumption of a jet-powered destroyer.

"First, in fuel economy, we are a little ahead of a steam plant. The difference with a jet engine is that the faster you run it, the more efficient it is. If we have two engines running, one on each shaft, our fuel consumption is better at 25 knots than it is at 12 knots. That's talking in gallons per hour, not even discussing gallons per mile. In comparing gallons per mile, we will go a lot farther at 22 to 25 knots than we would at 12," Commander Harbrecht noted.

The Commander can have his eight thousand-ton ship underway and up to full speed in 90 seconds flat. Traveling at top speed, the ship can stop in four lengths of itself. Its 222 enlisted men are no longer involved in performing major repairs, as they might have been on conventional-powered destroyers. If a SPRUANCE engine goes out, the ship will pull alongside a tender ship, where the power plant will be pulled out through the exhaust or smokestack and replaced. Total time out: 72 hours. Navy enginemen (ENs) then overhaul the engine or send it to a repair facility ashore.

Continued

MONITORING ENGINE SPEED and regulating the fuel flow are two important positions at the SPRUANCE's electronic control panel. (US NAVY PHOTO)

ON THE BRIDGE of the SPRUANCE, a young sailor keeps steady hands on the throttle and helm while watching a radar scanning scope on the console. (US NAVY PHOTO)

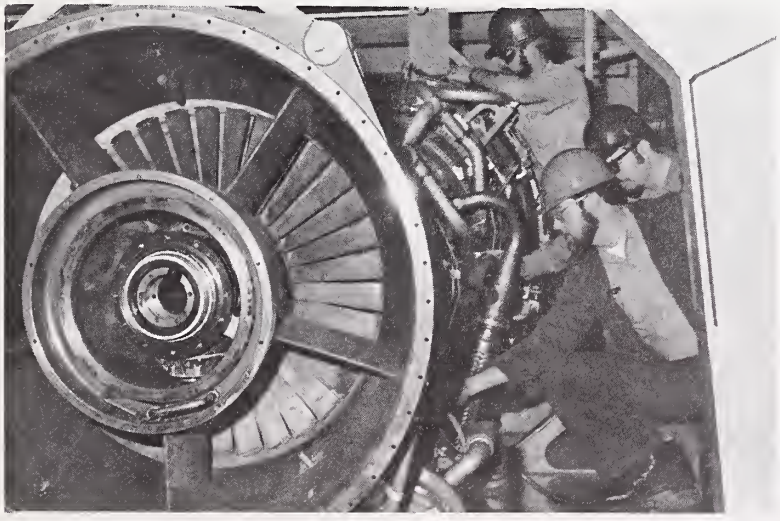
Aboard the jet-powered destroyer, ENs monitor electronic control consoles and do preventive maintenance on the turbines, propulsion control systems and power train. Commander Harbrecht describes the working and living conditions for the men of SPRUANCE as "vastly superior. Maintenance required for the main propulsion is drastically reduced, as well as the noise and temperature levels in the conversion from steam-powered destroyers. SPRUANCE has the best living conditions I've ever seen on a ship. Each compartment is air conditioned and each rack (bed) has its own air conditioning diffuser. Berthing compartments are equipped with showers and lounge areas, in addition to other separate crews' lounges."

Although SPRUANCE is the first major combat ship in the Navy to use jet propulsion, 14 jet-powered patrol gunboats were built between August 1964 and December 1969, and performed outstandingly in Southeast Asia. Marine gas turbine engines are presently being tested in surface ships which have reached a record 82.3 knots (95 mph) and in patrol hydrofoils. Present naval plans call for up to 64 ships of the guided missile frigate class (445-foot ships with basically half of the SPRUANCE's propulsion plant) and six guided missile patrol hydrofoils to be built in the coming years.

The Navy will soon need technicians to run these jet-powered ships of the future. Three different Navy ratings or job specialties will be required. Enginemen, interior communications electricians (ICs) and electricians' mates (EMs) will receive factory courses in their job specialties at Navy schools as well as at various manufacturers' locations, following basic training. Gas turbine courses are usually between 16 and 30 weeks long.

Preventive and corrective maintenance performed by enginemen is accomplished easily through the module design of many components. A great feature of the new equipment is a "total unit diagnosis system" which isolates faults on major systems and which can be automatically tested. The system actually continually checks out the propulsion units and predicts any possible failures before they occur.

NAVY ENGINEMEN perform continuous preventive maintenance and inspections on the SPRUANCE's huge turbine engines to keep them in top running order. (U.S. NAVY PHOTO)



The computer check-out and test features of the control system call for the expertise of a Navy interior communications electrician (IC) who is responsible for maintaining and calibrating the test system.

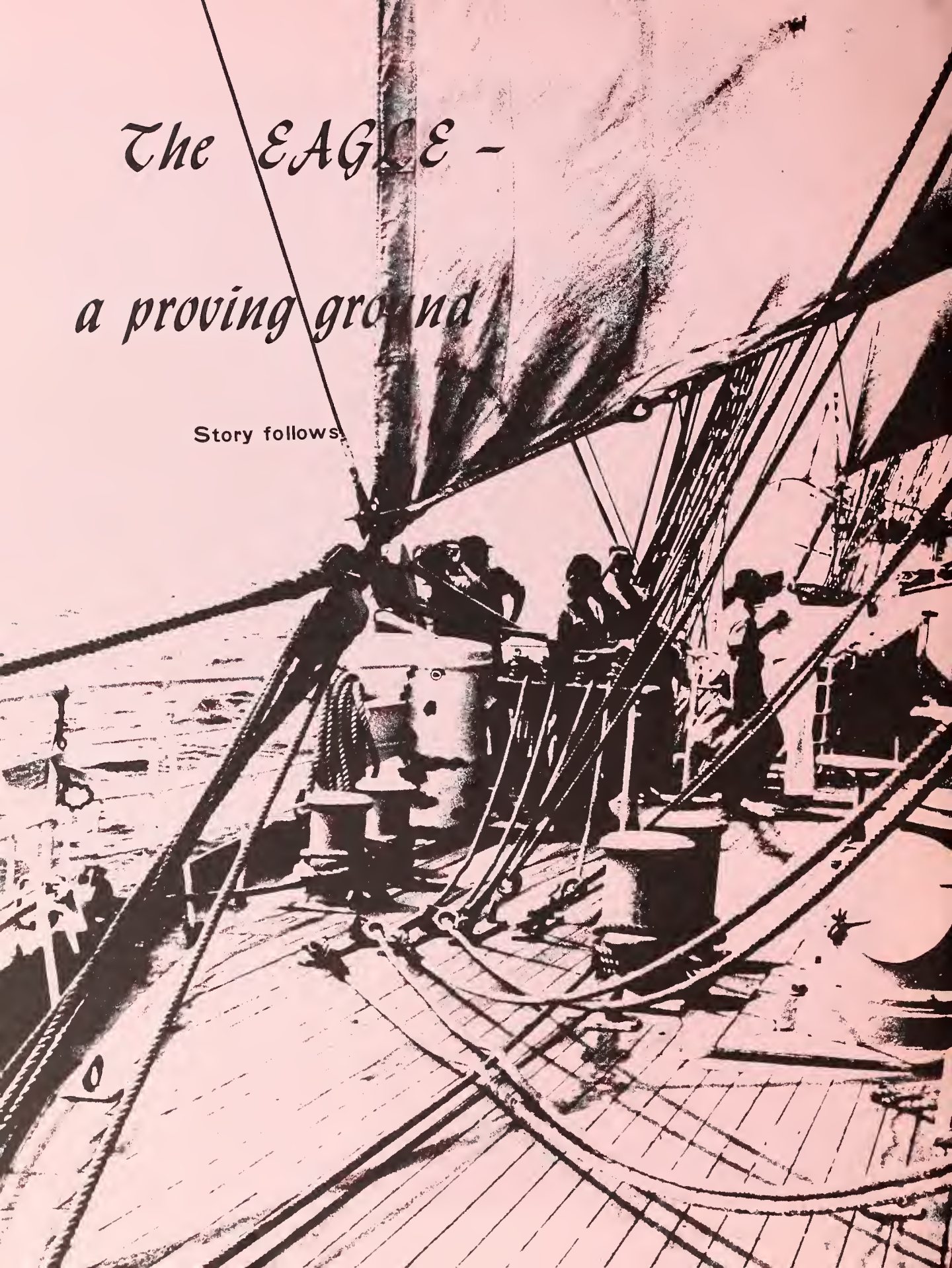
As the SPRUANCE class of ships takes its place in the Navy's fleet, it is expected that a new job specialty will be created to perform maintenance — the gas turbine system technician, trained to control and maintain the electrical power generated by the two 501 gas turbine engines.

New jobs, new performance levels — that's the SPRUANCE, one of the newest and hottest ships in the Navy.

The EAGLE –

a proving ground

Story follows



Given the modern technology of large power-driven vessels, radar, automatic pilots and computers, it is all too easy to underestimate the sea. Training under sail teaches a respect for the sea which is a valuable asset for all Coast Guard officers.

(Editor's Note: *During the Summer of 1977 the first woman cadets of the Coast Guard Academy will be taking their first cruise aboard the Eagle. At that time, PROFILE magazine will have SP5 C. Nelson, Army Editor, aboard to cover the adventure. Her article is presently scheduled to appear in the November 1977 issue of PROFILE*).

BY THE END of their first cruise, cadets are at home in the rigging. Preparatory to sailing (below), a cadet snatches a few moments "alone" with the book, "Eagle Seamanship." (U.S. COAST GUARD PHOTOS)

Going to sea under square sails

Each summer the harbor at New London, CT becomes the scene of a drama from another age. As 23,000 square feet of white sail are unfurled, cadets of the U.S. Coast Guard Academy prepare the sailing bark EAGLE for its summer adventures.

From the decks and rigging of EAGLE the cadets receive their first taste of salt air. From this experience they will develop a respect for the wind and sea which they will never forget.

The 295-foot bark-rigged ship was built in 1936 in Germany and was originally named HORST WESSEL. She was used as a training vessel for German naval cadets. Following World War II she became a Coast Guard training ship when she was claimed as a war reparation.

Since 1947 the Coast Guard cadets have taken to the sea for summer training aboard the EAGLE. During those years they have visited ports from Seattle to Europe.

Following a nine-year break in visits to ports in Europe, the EAGLE and her crew of cadets returned once again to the Baltic Sea where she participated in Operation Sail in 1972. The highlight of the EAGLE's career came on July 4, 1976 when she was the host ship and lead vessel for Operation Sail which culminated in New York harbor in honor of the American Bicentennial.

A cadet's life on board EAGLE is a mixture of hard work, pleasure, and sightseeing, with the accent on hard work. EAGLE provides a valuable training experience for the cadets. On a square-rigger, a cadet working aloft inevitably meets fear and learns to overcome it. He is tested and stretched, often to the limit of his endurance, by the various situations that occur at sea on a square rig.

The Coast Guard Academy

The United States Coast Guard, America's oldest continuous seagoing service, has a unique Federal Service Academy at New London, CT.

The basic mission of all the academies is to provide officers with training and leadership for their particular branch of the service through curricula which have many similarities. But unlike the other academies, the Coast Guard is the only one which tenders all appointments solely on the basis of an annual nationwide competition. There are no congressional appointments, as at the other academies, nor are there any geographical quotas.

To be eligible for appointment to the Coast Guard Academy, a candidate must be a high school senior or graduate, between the ages of 17 and 22, a citizen of the United States, unmarried, and of good moral character.

Competition for appointment as a cadet is based on the individual candidate's high school rank, performance on the College Entrance Examination Board Scholastic Aptitude Test (CEEB) and leadership potential as demonstrated by participation in high school extracurricular activities or community affairs. The most successful of the candidates rank in the upper-half of their class and demonstrate a high degree of knowledge in the mathematical and scientific academic areas.

Continued

Achievement opens the door

Once at the CG Academy the young cadet will participate in a curriculum of liberal arts, engineering, and professional subjects, with a choice of some options. Such options include many of the engineering and physical science fields, oceanography, economics, management and social science. The options, combined with various elective courses lead a graduate of the Academy to a Bachelor of Science degree and a commission as an Ensign in the Coast Guard. Once commissioned the new CG officer must serve on active duty for a minimum of five years.

(Prospective candidates must make their own arrangements to participate in the prescribed CEEB test. Submit applications to the Director of Admissions, U.S. Coast Guard Academy, New London, CT 06320.)

Persons interested in applying for entrance into the academy should begin preparation during their high school or early college studies. Required for eligibility are 15 high school or college units, to include three in English, three in mathematics including algebra and plane or coordinate geometry, and seven additional units in math, English, science, social studies, or foreign language. While not required, it is recommended that early preparation also include solid geometry, trig, physics and chemistry courses.

Following graduation, certain selected officers may seek higher education and specialized training in either civilian and military graduate or professional schools. Such areas of study include aviation, business administration, electronics, engineering, law, naval architecture, and oceanography.

After commissioning, the CG graduate can look forward to a varied and demanding career as a regular Coast Guard officer. In wartime the Coast Guard functions under the Department of the Navy. However, during peacetime, CG men and women find themselves under the Department of Transportation (DOT) performing essential humanitarian missions vital to the safety and saving of lives at sea and ashore.

Patrolling the sea

Under DOT, they establish and coordinate search and rescue operations by ship and plane, maintain advanced electronic and other aids to navigation scattered around the globe (including many of America's rivers), and operate icebreakers which clear the way for all polar expeditions. They also enforce marine law and all aspects of Merchant Marine safety, and maintain a high degree of military readiness to fulfill the Coast Guard's Naval wartime commitment. They also enforce U.S. laws and international agreements concerning fishing within territorial limits and administer maritime conservation laws; enforce anti-pollution laws and assist U.S. Customs in drug smuggling prevention.

The guiding principle for the men and women cadets at the Coast Guard Academy during their four years of training is the Academy's motto, Scientia Cedit Mare (The sea yields to knowledge). This prepares them to serve America with high esteem and wherever they may be stationed and whatever job they may have, whether they perform search and rescue, plot icebergs in the North Atlantic or tend navigation buoys on the mighty Mississippi, these academy graduates will also be promoting the tradition of the Coast Guard motto, Semper Paratus (Always Ready).

COAST GUARD ACADEMY CADETS practice for graduation day ceremonies which will mark the beginning of their commissioned service. (U.S. COAST GUARD PHOTO)

The DI's job:

Training for the future

When the title Marine Corps Drill Instructor is mentioned, many images come to mind — and each former recruit could probably conjure up a different one.

As a young trainee, Harold T. Thomas remembers standing in the ranks of boot camp with mixed emotions about his Drill Instructors. He admired, respected, feared and disliked them — all at once. After this intense and personal experience was completed, he entered the Marine Corps well prepared to assume his duties. The DIs had given him the basics on which to build a Marine Corps career.

Continued

THE DRILL INSTRUCTOR is always on hand to help trainees through the demanding requirements of weapons qualification. (U.S. MARINE CORPS PHOTO)

The DI is tough but not mean. He epitomizes leadership and is a guiding force. Whatever image he may project, the DI has the responsibility for providing young people with the instruction, guidance, leadership and the personal good example which produces a mature, adjusted individual ready to face the challenges of life and the Marine Corps. Such results can only occur in an established atmosphere of mutual respect and understanding.

Sergeant Harold T. Thomas is a prime example. Through years of hard work, study and excellent job performance that followed he has distinguished himself as a top individual and Marine. His superiors recommended him for drill instructor training. "I was motivated to be a DI. I saw the challenge and tough work and wanted to try it. I wanted to help increase or improve the quality of recruits," he remembers.

After thorough screening by review boards at all levels, including Marine Corps Headquarters, Thomas was selected to be a DI.

As in any career or profession, Marine DIs go through their share of schooling, to gain that important experience which is designed to build their self confidence. DIs attend a special nine-week school at either Parris Island, SC or San Diego, CA.

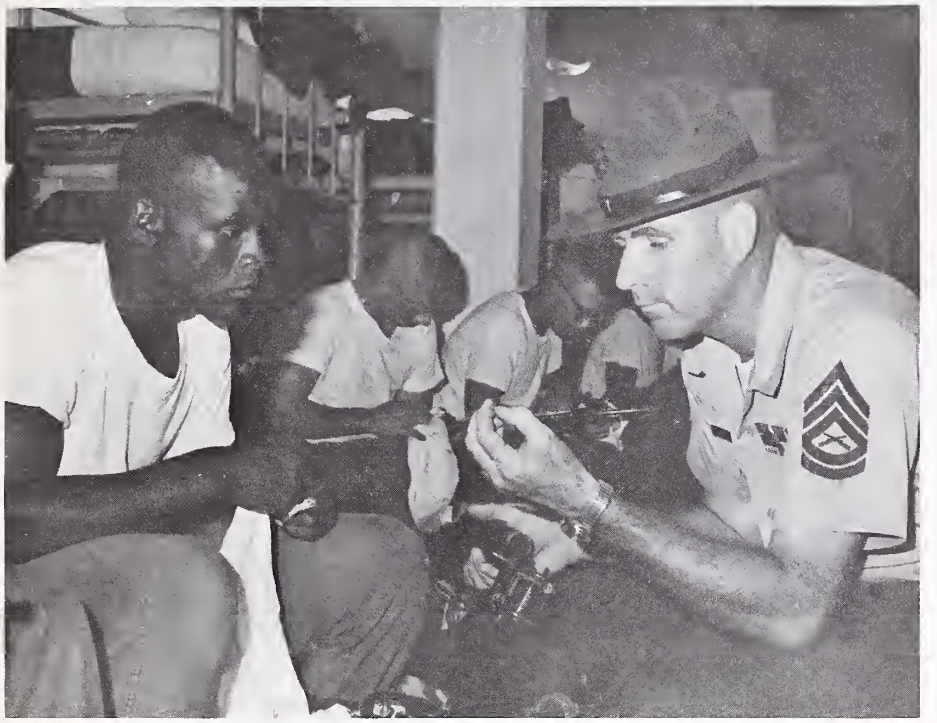
"It was like going through boot camp again," related Thomas. Training is intense and ranges from physical conditioning and drill to Marine history, customs and courtesies, leadership and, more importantly, learning the Standing Operating Procedures (SOP), "the DI's Bible."

The SOP spells out how recruits are to be trained and how drill instructors will conduct themselves, to ensure that the job of training boots is performed in the best manner possible. Sergeant Thomas noted that one of the most important parts of the SOP is the DI's Pledge which states, "I will train them (recruits) to the best of my ability. I will develop them into smartly disciplined, physically fit, basically trained Marines, thoroughly indoctrinated in love of Corps and country. I will demand of them and demonstrate by my own example, the highest standards of personal conduct, morality and professional skill."

"As I went through DI training I began to formulate my ideas of how to handle the individual recruit — starting with the first day, then working, sometimes on a one-to-one basis, as the weeks went by in order to see the right attitudes developed, the adjustments that sometimes had to be faced," related Thomas.

As Thomas and his classmates found out, the ranks at DI school quickly shrink. It is no easy task qualifying to wear the coveted "Smokey Bear" hat. With that symbol comes the responsibility of training tomorrow's Marines. But, for those who make it, "It's a feather in your cap to graduate," according to Sergeant Thomas.

New DIs are assigned to a platoon averaging 75 recruits. Under the supervision of experienced instructors, they begin putting into practice all they have learned in DI school. Thomas recounted that, "At first, the DI is more scared of the recruits than



GETTING RECRUITS READY for their final inspection is one of the most important tasks the DI must perform. (US MARINE CORPS PHOTO)

they are of him. When a new DI comes, others have already built up his image to the recruits — made them think he is mean and tough. The DI must adjust to this image." It's a difficult experience facing a group of trainees while trying to develop self-assurance and personal image, especially in strange surroundings. After a probation period, the new DI joins two others and then is assigned to a platoon just commencing the training cycle.

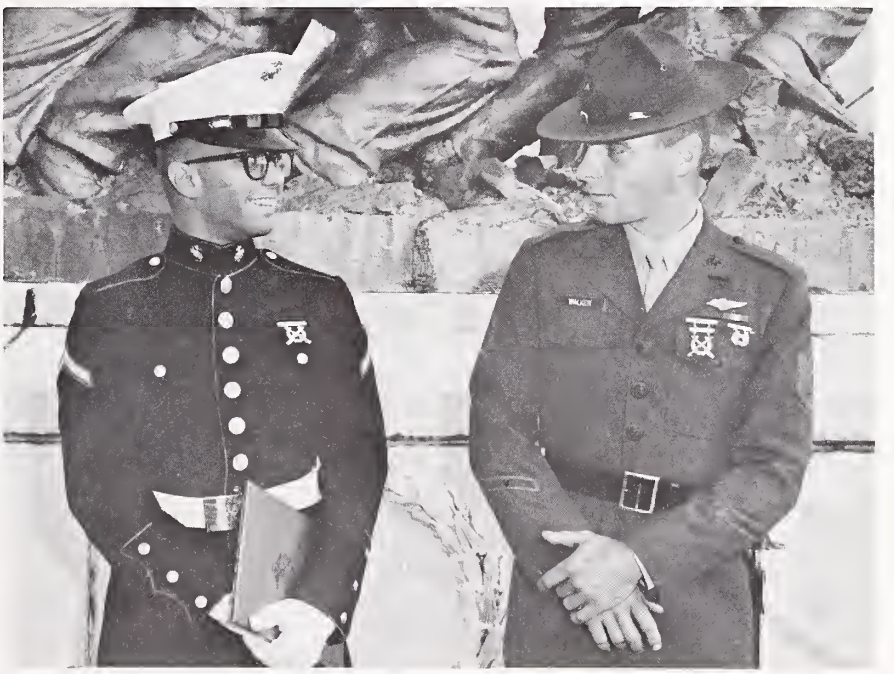
Self-motivation can sometimes be a problem for the DIs. Thomas recalled, "An average day runs from reveille to taps. The DI has to be there an hour before and an hour after. I saw my family about four total days out of the first few months I had my initial platoon. I worried that my young children weren't seeing enough of me."

Graduation day finally arrives for the recruits. For them it is the answer to many prayers. For the DIs, it's something else. "You see recruits when they come in and can't do anything. Eleven weeks later they are changed — Marines. Often recruits say they couldn't stand you as a person but by graduation they admit you were right. They take part of you with them when they graduate," relates Sergeant Thomas.

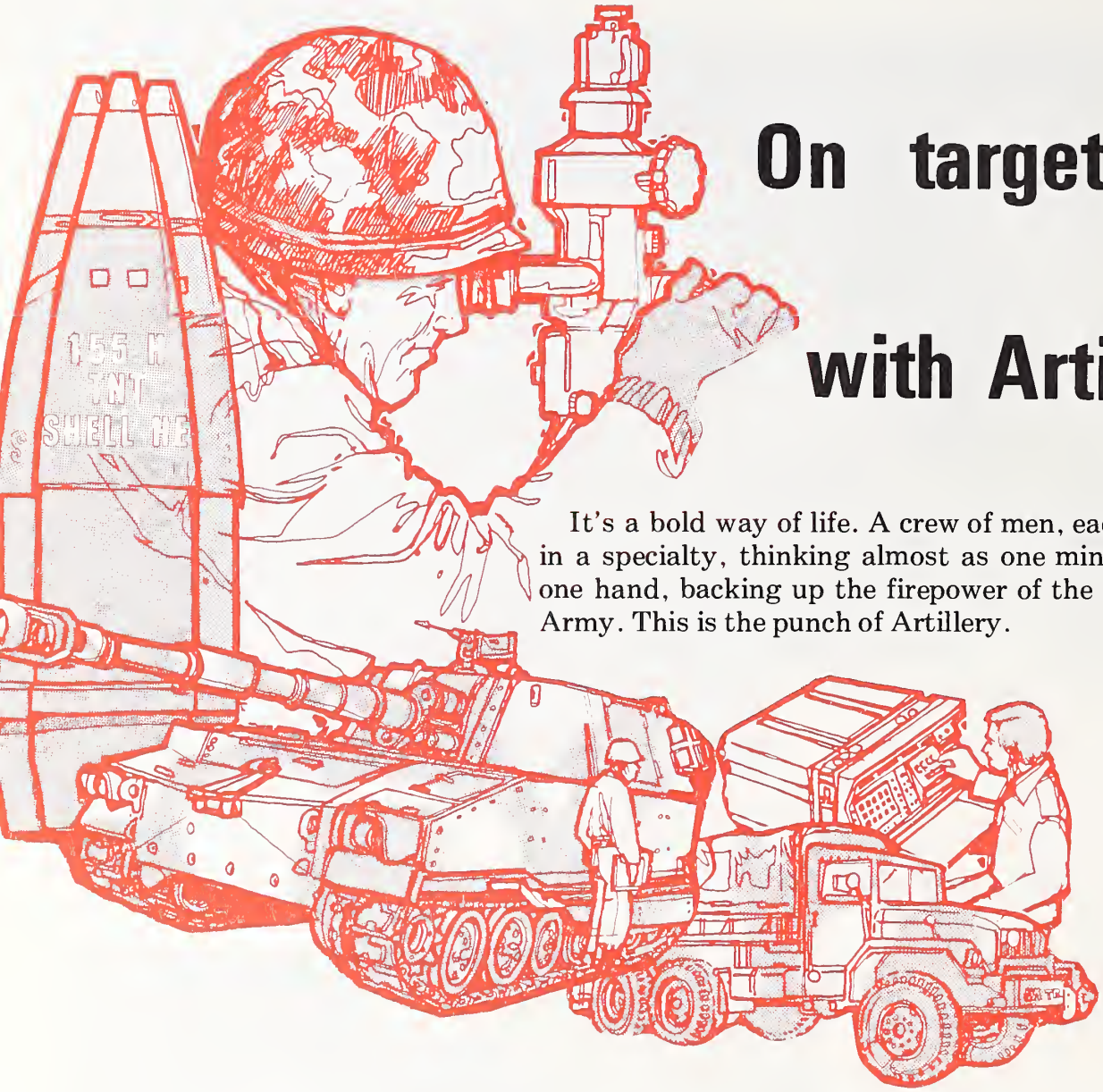
Most DIs are parents. In some ways their work can be compared to the job as a parent. As a parent is proud to see a son or daughter leave home to seek a future, so the DI is proud to see recruits enter the Marine Corps. "Sometimes you receive letters from your former boots or meet them in the field and later work with them. That's pretty satisfying," concedes Sergeant Thomas.

He would gladly serve as a DI again. What recruits make of the world and the Marine Corps will be a reflection of the training received at home and at boot camp — with the guidance of DIs such as Harold Thomas.

GRADUATION DAY means the end of Boot Camp, but the Drill Instructors' training and influence follow Marines throughout their service careers. (U.S. MARINE CORPS PHOTO)



On target - with Artillery



It's a bold way of life. A crew of men, each one trained in a specialty, thinking almost as one mind, working as one hand, backing up the firepower of the United States Army. This is the punch of Artillery.

As combat arms, Field and Air Defense Artillery were born centuries ago with the invention of simple catapults. Today's artillery looks to nuclear technology as deterrent power, as well as highly advanced self-propelled and transported missiles.

The roar of the big guns is still the voice of the Army. Field Artillery concentrates on supporting the ground troops and breaking up or delaying enemy attacks. Crews get to know their weapons inside out, assembly and maintenance, loading and launching — what they can do and where they can go. Although there have been recent consolidations in some job assignments, there are still three basic areas to master: light and medium field artillery, heavy and very heavy field artillery and the rockets. The fast-moving guns which are towed or helicopter-lifted to the scene, the bunker-busting tracked howitzers and the pinpoint accuracy of rockets, are all introduced during the eight-week crewman course conducted at Ft. Sill, OK.

Working on all sides of the guns are other field artillery members, such as surveyors. These men establish the location of our guns, howitzers and missiles, the position of our target-acquiring devices and the outlying enemy targets. A common relationship is then figured between the three sites, providing a grid or local reference for the fire crews to use.

Meanwhile, target acquisition units are working with radar to locate enemy fire platoons. Sometimes the hostile fire can be located by the flash or sound of the

LANCE MISSILEMEN carefully load warheads during an evaluation of the Army's mobile tactical missile system at Ft. Sill, OK. (U.S. ARMY PHOTO)

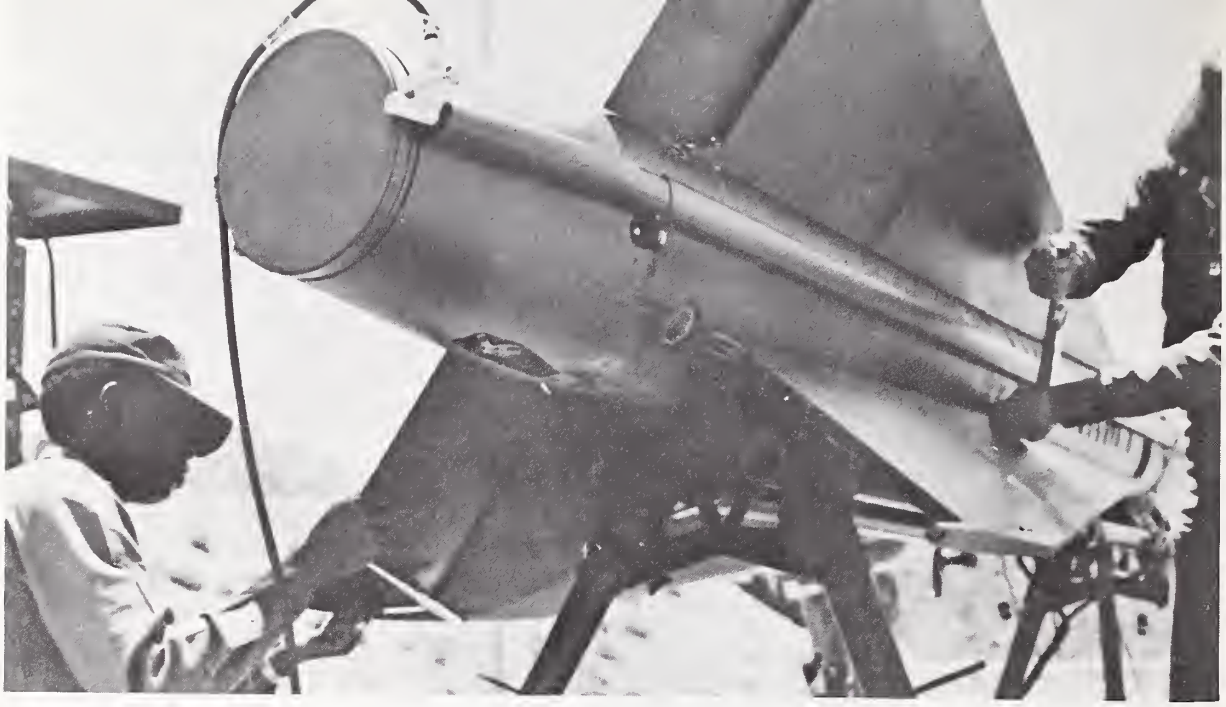
SADDLING UP — Corporal Richard M. Crumbley, 11th Artillery, 101st Airborne Division, slings a 155mm howitzer in preparation for helicopter transport by the CH-54B "Flying Crane." (U.S. ARMY PHOTO)

discharges. Forward observers move in with optical scopes, binoculars and ground sensors to gather intelligence about the enemy. All elements are linked by wire and radio networks, on channels at the center of the Army's frequency band so that the artillery can rapidly support both armor and infantry units.

What the roar of the big guns does during battle, the strength and surveillance of nuclear weapons do in peacetime. Maintaining the weapons that watch over the freedom of our skies is the job of the Air Defense Artillery. Nike, Hercules, Hawk, Chaparral and Vulcan, Redeye — the names describe a sophisticated arsenal of missiles and cannons guided and controlled by the latest in radar and communications systems. Here, too, each job requires the highest level of individual performance. Once air defense artillerymen are finished with specialty training at Ft. Bliss, TX, they report to batteries located within a few miles of some of the nation's largest cities. Or, they may find themselves stationed in Korea, Germany or Alaska.

To maintain their continual state of readiness within close proximity to civilian communities, air defense units have to deal with several brow-wrinkling exercises and tests throughout the year. These measure their ability to defeat complex radar-jamming techniques typical of enemy air crews, to smoothly coordinate aircraft during maneuvers and to actually fire some of the missiles.

Continued



ARTILLERYMEN ASSEMBLE a HAWK missile, designed for defense against low flying attack aircraft or incoming missiles. (U.S. ARMY PHOTO)

Hercules units in the desert of New Mexico, for instance, stage six days of forceful fireworks annually at McGregor Range. Crews fly to El Paso, TX, then board buses for the bumpy ride out to the range. After several briefings, they log a few hours checking equipment and assembling missiles as the ever-present evaluators watch and grade each step.

Then the moment of truth arrives. At McGregor firing sites, sirens wail, fatigue-clad men scurry to their battle stations and the countdown begins. Trailing a tail of flame, a missile heaves itself into the blue New Mexico sky. Exercise scores begin to come in from the evaluation team, and the air defense artillerymen can see first-hand how well they know their jobs.

Whether in Field or Air Defense, artillerymen never forget the first time they watch the earth erupt as a 200-pound howitzer shell reaches its target or the smoking, rumbling lift-off of a Nike. Artillery is bold, exciting and deadly serious; during conflict or peace, it's also one of the most important jobs in America's defense.

HOOK UP — Soldiers of the 5th Battalion, 30th Artillery, perform corrections on the azimuth orientation unit prior to test firing the SERGEANT missile. (U.S. ARMY PHOTO)

Armed Forces Pay Scale

YEARS OF SERVICE PAY GRADE	UNDER 2	2	3	4	6	8	10	12	14	16	18	20	22
Officer													
O-10	2943.90	3047.40	3047.40	3047.40	3047.40	3164.10	3164.10	3406.80	3406.80	3650.40	3650.40	3894.60	3894.60
O-9	2609.10	2677.80	2734.50	2734.50	2734.50	2804.10	2804.10	2920.20	2920.20	3164.10	3164.10	3406.80	3406.80
O-8	2363.10	2433.90	2491.80	2491.80	2491.80	2677.80	2677.80	2804.10	2804.10	2920.20	3047.40	3164.10	3291.00
O-7	1963.50	2097.30	2097.30	2097.30	2190.90	2190.90	2318.40	2318.40	2433.90	2677.80	2861.70	2861.70	2861.70
O-6	1455.30	1599.30	1703.40	1703.40	1703.40	1703.40	1703.40	1703.40	1761.30	2040.30	2144.70	2190.90	2318.40
O-5	1164.00	1367.10	1461.30	1461.30	1461.30	1461.30	1506.00	1586.40	1692.30	1819.50	1923.90	1981.80	2051.40
O-4	981.30	1194.30	1274.70	1274.70	1297.80	1355.70	1447.80	1529.40	1599.30	1668.90	1715.40	1715.40	1715.40
O-3	912.00	1019.40	1089.60	1205.70	1263.30	1308.90	1379.10	1447.80	1483.20	1483.20	1483.20	1483.20	1483.20
O-2	795.00	868.50	1043.10	1078.20	1100.70	1100.70	1100.70	1100.70	1100.70	1100.70	1100.70	1100.70	1100.70
O-1	690.00	718.50	868.50	868.50	868.50	868.50	868.50	868.50	868.50	868.50	868.50	868.50	868.50
Enlisted													
E-9	0.	0.	0.	0.	0.	0.	1055.40	1079.40	1104.00	1129.50	1154.10	1176.90	1239.00
E-8	0.	0.	0.	0.	0.	885.60	910.20	934.50	959.10	984.00	1006.80	1031.70	1092.00
E-7	618.30	667.20	692.10	716.10	741.00	764.10	788.40	813.30	849.90	873.90	898.50	910.20	971.40
E-6	534.00	582.30	606.60	631.80	655.50	679.80	704.40	741.00	764.10	788.40	800.70	800.70	800.70
E-5	468.90	510.30	534.90	558.30	594.60	618.90	643.80	667.20	679.80	679.80	679.80	679.80	679.80
E-4	450.60	475.80	503.70	543.00	564.30	564.30	564.30	564.30	564.30	564.30	564.30	564.30	564.30
E-3	433.20	457.20	475.50	494.40	494.40	494.40	494.40	494.40	494.40	494.40	494.40	494.40	494.40
E-2	417.30	417.30	417.30	417.30	417.30	417.30	417.30	417.30	417.30	417.30	417.30	417.30	417.30
E-1	374.40	374.40	374.40	374.40	374.40	374.40	374.40	374.40	374.40	374.40	374.40	374.40	374.40

Additional Allowances

In addition to their basic salaries, military personnel are paid clothing allowances and various types of special pay, according to their assigned duties. Allowances are also paid for quarters and subsistence. These may range from a basic $2.65 per day for enlisted members to a monthly rate of $55.61 for officers. Housing allowances are paid according to rank and marital status, starting at $73.80 for unmarried E-1s authorized to reside off the military installation. Married personnel normally draw both subsistence and housing allowances, unless quarters are available; single personnel are granted these allowances on a case-by-case basis.

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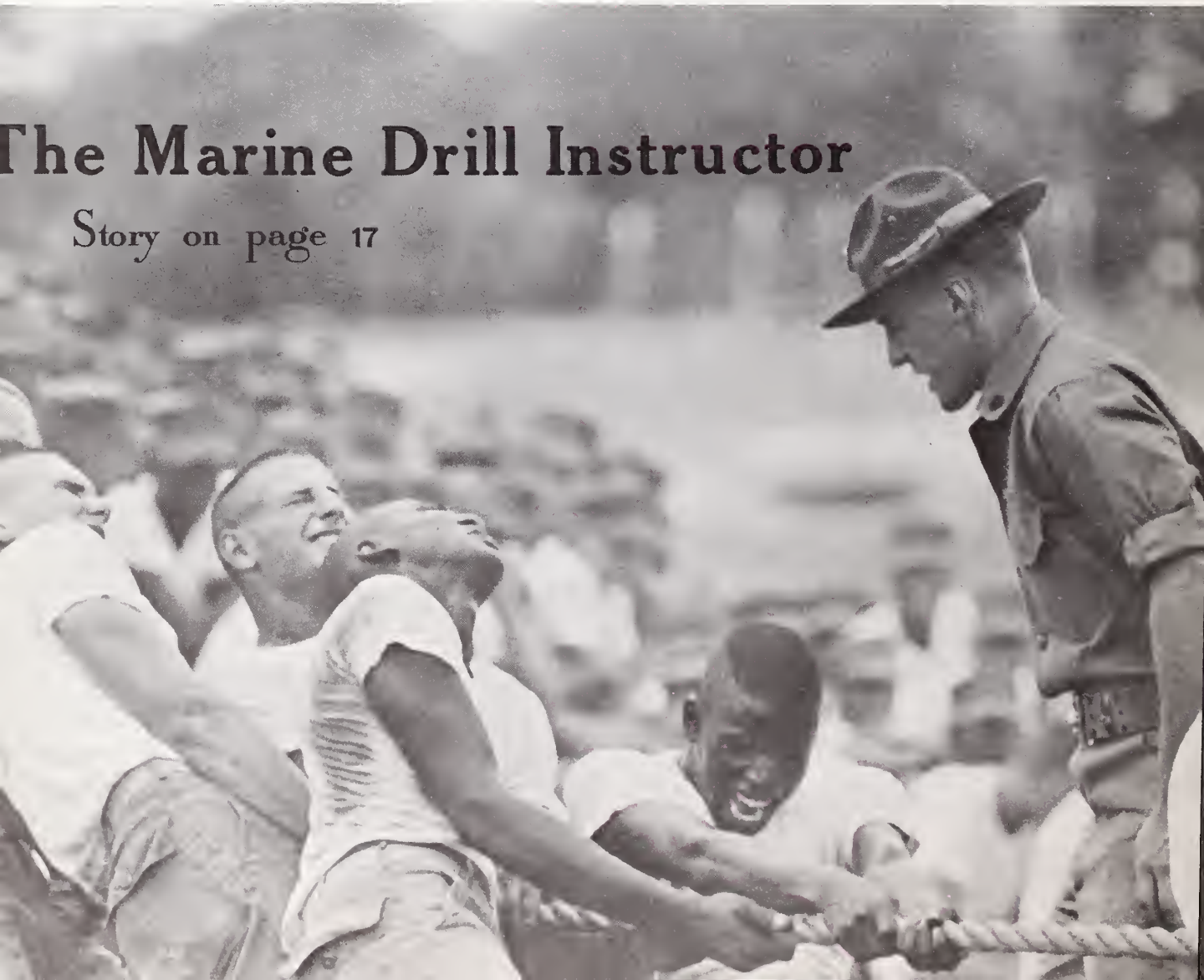
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